

Free and Open Source E-Resource for Food Technology for the under Graduate Students

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ABSTRACT

In this study the author summarize the highly advanced and more effective approaches for the department of food technology. There are some web links for terminology of food technology. The study will help the under graduate level students of Delhi University to easily access the required information and also help in understanding the technical requirements of accessing and using. Now each day student of all age groups, backgrounds and communities are tapping into a wide range of technological tools and services to enhance their learning productivity as well as to add real world relevancy and context of their studies. E-resources have proved very useful and beneficial for all academic communities – teachers, researchers, scholars etc. the national council education research and training and central board of secondary education (CBSE), UGC took the initiative of providing its resources on the web and mobile platforms. Through a special license, it has liberated access to all the digital contents including e-books.

Keywords: *Open Source, E-Resource, Electronic resources.*

1. Introduction

Modern era is an era of rapid technological advancements. These advanced are being manifested in different types of resources which are great advantage in every stage of life. The sphere of education is also witnessing the same situations. Entire education system, including teaching learning process is undergoing drastic changes. The emergence of electronic learning and information resource has revolutionized the whole concept of education. The advent of Internet has dramatically changed the way of people and institutions function. It has led to tremendous changes in the way libraries function and offer services to their users. At present, the libraries actively procure, organize, display and issue e-forms of books, journals, newspapers, thesis and dissertations. This is also due to change in information seeking behavior of users.

2. Electronic resources

The new generation of users prefers online resources as they want all information at the click of mouse. The e-resources have certain inherent characteristic features which offer convenience to the users. This lesson discusses the concept and importance of e-resources. It deals with different types of e-resources, their advantages and disadvantages. An e- resource is material which requires computer mediation in order to access its content and make it useful. Both online and offline resources such as

CD- ROMs fall within the scope of e- resources. The term e-resource refers to all the products which a library provides through a computer network. The electronic resources are also known as online information resources covering bibliographic databases, electronic reference books, search engines for full text books, and digital collections of data. They include both "born digital" materials which have been produced directly online. For example-e- journals, databases, and print resources which have been scanned and digitized. The electronic resources, e-journals, online databases are not "owned" by the libraries as they own the print material. Ownership of electronic resources lies with the providers of these resources. Access to the electronic resources may be free via Internet or may be available against a fee. Some of the examples of e- resources are magazines, encyclopedia, newspapers, journals or articles published in them. These may be accessed on Internet connected devices such as computers, tablets, smart phones, etc.

3. Type of Electrical Resources

Online E Resource

- E journals (full text and bibliographic).
- E Book.
- Online Database.
- Websites.

4. Other Electronic Resource may include

- CD Rom

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- Diskettes
- Other Portable computer database types of E-Resources

Thus electronics resources offer today's student new opportunities that were not available to previous generations. The importance of e-resources has been increasing for fast few years because of :-

- Pandemic era in last two years.
- Inflation in the cost of printed materials.
- Growing number of academic publications.
- Change in teaching learning process.
- Technological advancement etc.

5. Statement of the Problem

With the introduction of ICT and recent advancement in technology a lot of valuable study material, on the different topics of the different subject, is available in digital form present study. Many of the University libraries have significant investment in providing services to ensure that students can have access to e-resources that will add value to their academic and research work. Aim to compile these scattered materials and to present a useful information resource for the students of food science. Having numerous database and e-resources could make the search very much possible. But at the same time user can find it confusing when attempting to access information by jumping one source to another in the search of the required information. Beside this there are hardly any tools available through which one can find the different subject oriented OA e-journals in food sciences. There is a gap between the food sciences and literature published in OA e-journals. To reduce the gap there is an urgent need of compilation of categorical detail list of e-resources on different specific subject in food sciences.

6. Objectives of the study

- To bring together all the food technology related data in a single source
- To categorize the available E-Resource level wise and broad subject wise.
- To save the time of the student.
- To find out the availability of various categories of e-resource.
- To identify the problems faced by the users in accessing e-resources.

7. Scope of the study

Main thrust of this study is to know about the e-resource and services in detail, their advantages about the student. The study is very helpful for the food technology's students. All the data will be collected on the basis of the syllabus of Delhi University of food technologies

8. Free E-Resources

On the basis of the chosen terminology from the syllabus of the Food Technology honors, the detail subject heading

has determined. An in depth study has been done, and through different search engines the below listed links are verified and enlisted for each of the chosen topics (**Table 1**).

9. Conclusion

In this pandemic era E-Resources are the key of successful teaching learning process. This study tries to full fill their query in electronics form by one click all the useful data provided to the student in open source. Other advantages of using e-resources are like convenient in use, remote access increase the number of readers. Though users face some problems while using e-resource but now a days many software have been developed new projects are going on to provide better solutions to existing problems. This study encouraging digital India mission and student feel user friendly with the electronic form. Now each day student of all age groups, backgrounds and communities are tapping into a wide range of technological tools and services to enhance their learning productivity as well as to add real world relevancy and context of their studies. It is very clear that today's students are more technology savvy and fluent with the emerging technologies than the students of few years back. E-resources have been proved very useful and beneficial for all academic communities – teachers, researchers, scholars etc. The rapid developments in the fields of computer applications during the past few decades have brought radical changes in the way information is gathered, sorted, organized, accessed, retrieved and consumed. The application of computer and latest technology in information processing has brought several products and services.

The digital India campaign was launched by Honorable Prime Minister of India Sh. Narendra Damodar Das Modi on 1 July 2015. With a view to realize the goal of digital India in the students education and teacher education sector and to reach out of all the people of India, the national council education research and training and central board of secondary education (CBSE), UGC took the initiative of providing its resources on the web and mobile platforms. Through a special license, it has liberated access to all the digital contents including e-books.

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Table 1: Verified and enlisted links for each of the chosen topics

Subject Heading	Weblinks
Enzymes	https://www.medicalnewstoday.com/articles/319704
	https://www.britannica.com/science/enzyme
	https://my.clevelandclinic.org/health/articles/21532/enzymes
	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4692135/
	https://www.genome.gov/geneticsglossary/Enzyme
Food Fermentation	https://www.webmd.com/foodrecipes/what-is-food-fermentation
	https://www.heartfoundation.org.nz/aboutus/news/blogs/fermentedfoods-the-latest-trend
	https://www.heartfoundation.org.nz/aboutus/news/blogs/fermentedfoodsthe-latest-trend
	https://www.ift.org/news-and-publications/food-technology-magazine/issues/2021/august/columns/processing-fermented-foods
	https://www.frontiersin.org/articles/10.3389/fmicb.2018.01785/full
Protein	https://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/protein/
	https://www.britannica.com/science/protein
	https://medlineplus.gov/genetics/understanding/howgeneswork/protein/
	https://www.livescience.com/53044protein.html
	https://www.betterhealth.vic.gov.au/health/healthyliving/protein
Food Composition	https://www.sciencedirect.com/topics/nursingand-health-professions/food-composition
	https://www.nal.usda.gov/human-nutrition-and-food-safety/food-composition
	https://www.diabete.qc.ca/en/living-with-diabetes/diet/food-and-nutrients/la-composition-des-aliments/
Dietary Fiber	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3614039/
	https://www.eufic.org/en/whats-in-food/article/what-is-dietary-fibre-and-is-it-beneficial
	https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/dietary-fiber
Food Safety	https://www.foodsafety.gov/food-safety-charts/food-safety-during-power-outage
	https://www.sesotec.com/apac/en/resources/blog/whats-food-safety
	https://www.who.int/newsroom/fact-sheets/detail/food-safety
Flesh Foods	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2445347/
	https://pubs.acs.org/doi/10.1021/ba1966-0056.ch011
	https://link.springer.com/chapter/10.1007/9783-642-87521-2_10
Food Quality	https://www.fssaifoodlicense.com/different-food-safety-food-quality/
	https://www.igi-global.com/dictionary/foodquality/66492
	https://www.fssaifoodlicense.com/different-food-safety-food-quality/
Food Laws	https://www.corpseed.com/knowledgecentre/food-laws-and-regulations-in-india
	https://www.mondaq.com/india/foodand-drugs-law/244880/laws-governing-the-food-industry-in-in
	https://ssrana.in/corporatelaws/food-laws/
Food Packaging	https://www.assemblies.com/foodpackaging-9-types-and-differences-explained/
	https://www.newworldencyclopedia.org/entry/Food_packaging
	https://www.yorksaw.com/types-of-food-packaging/
Food Preservation	https://www.biologyexams4u.com/2016/11/12methods-of-food-preservation.html
	https://www.britannica.com/topic/foodpreservation
	https://foodsafetyhelpline.com/
Nutraceutical foods	https://biomedres.us/fulltexts/BJSTR.MS.ID.002728.php
	https://durefoods.com/whatare-nutraceuticals/
	https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/nutraceutical
Bakery Technology	https://www.readingbakery.com/resources/bakeryequipment-technology-trends.html
	https://www.britannica.com/topic/baking/Flatbreads
	https://www.wiley.com/en-us/Bakery+Products+Science+and+Technology%2C+2nd+Edition-p-9781119967156
Technology of Cereals,	https://www.britannica.com/technology/cerealprocessing
	https://www.science.gov/topicpages/c/cereal+technology
	https://www.intechopen.com/chapters/80462

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